



Dual Compensated Porosity Log

Pioneer Energy Services

API No.

15-153-20918-00-00

Company **Murfin Drilling Company, Inc.**

Well **Culwell "D" # 1-30**

Field **Brumm North**

County **Rawlins** State **Kansas**

Location **2000' FSL & 2020' FWL**

Sec: **30** Twp: **1 S** Rge: **36 W**

Other Services
DIL/MEL
BHCS

Permanent Datum **Ground Level** Elevation **3275**

Log Measured From **Kelly Bushing** 10 Ft. Above Perm. Datum

Elevation
K.B. 3285
D.F.
G.L. 3275

Drilling Measured From **Kelly Bushing**

Date **02/11/2013**

Run Number **One**

Type Log **CNL / CDL**

Depth Driller **4770**

Depth Logger **4770**

Bottom Logged Interval **4749**

Top Logged Interval **3550**

Type Fluid In Hole **Chemical**

Salinity, PPM CL **800**

Density **9.3**

Level **Full**

Max. Rec. Temp. F **126**

Operating Rig Time **5 Hours**

Equipment -- Location **91 Hays**

Recorded By **D.Schmidt**

Witnessed By **Jeff Christian**

Borehole Record

Casing Record

Run No. Bit From To Size Wgt. From To

One 17.250 0 254 13.375 48 # 0 254

Two 7.875 254 TD

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

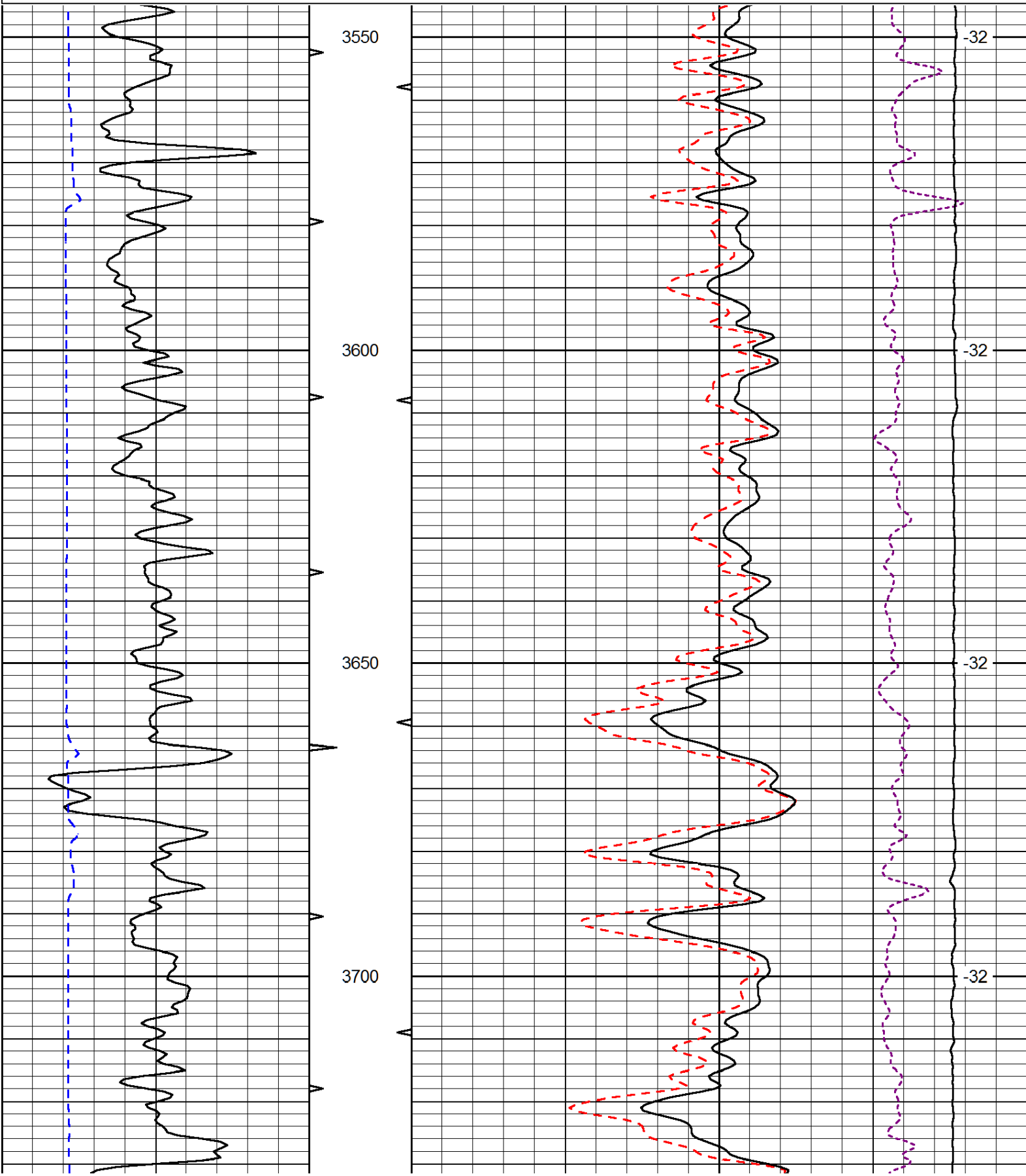
Comments

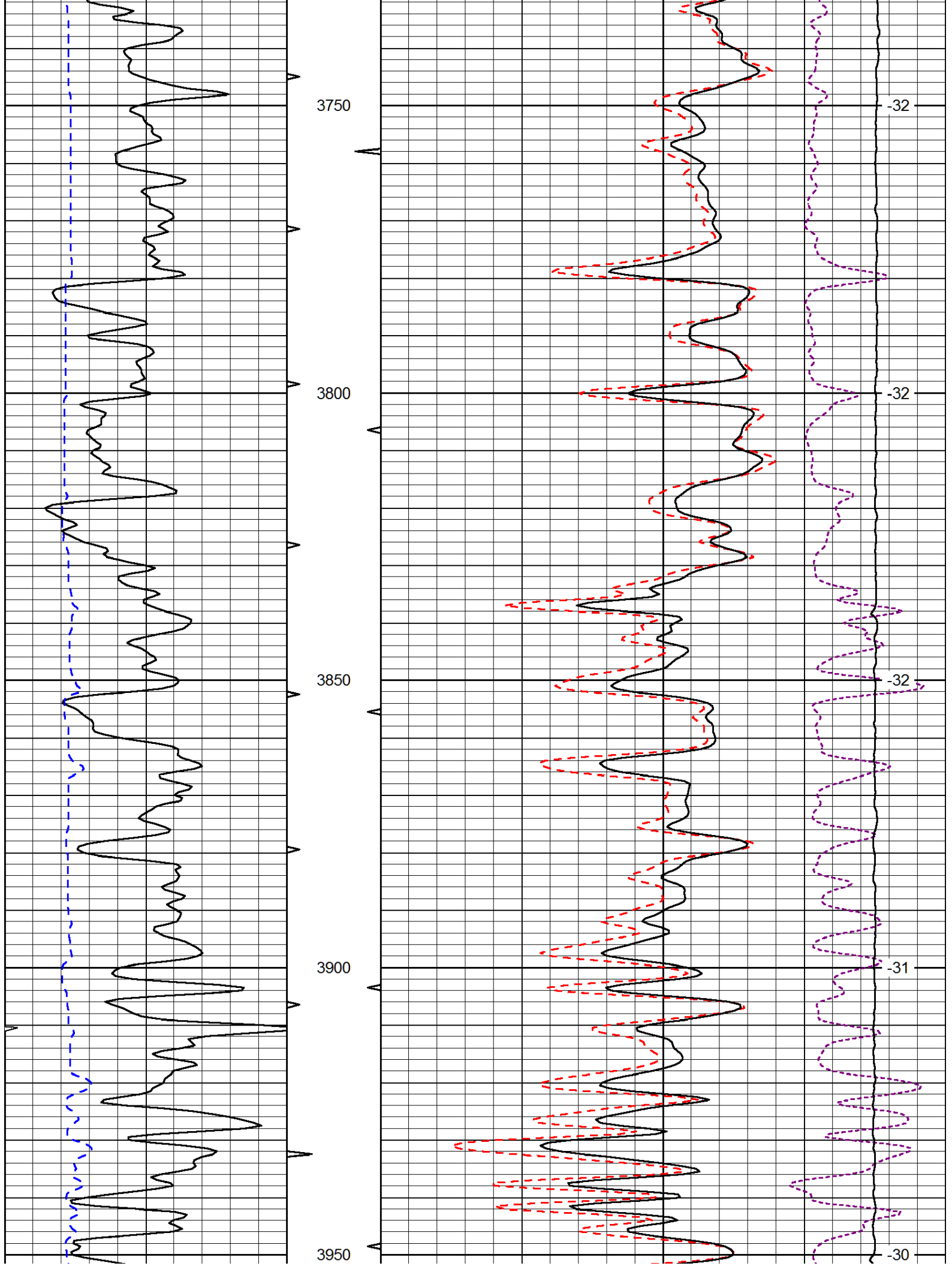
Thank you for using Log-Tech, Inc.
(785) 625-3858

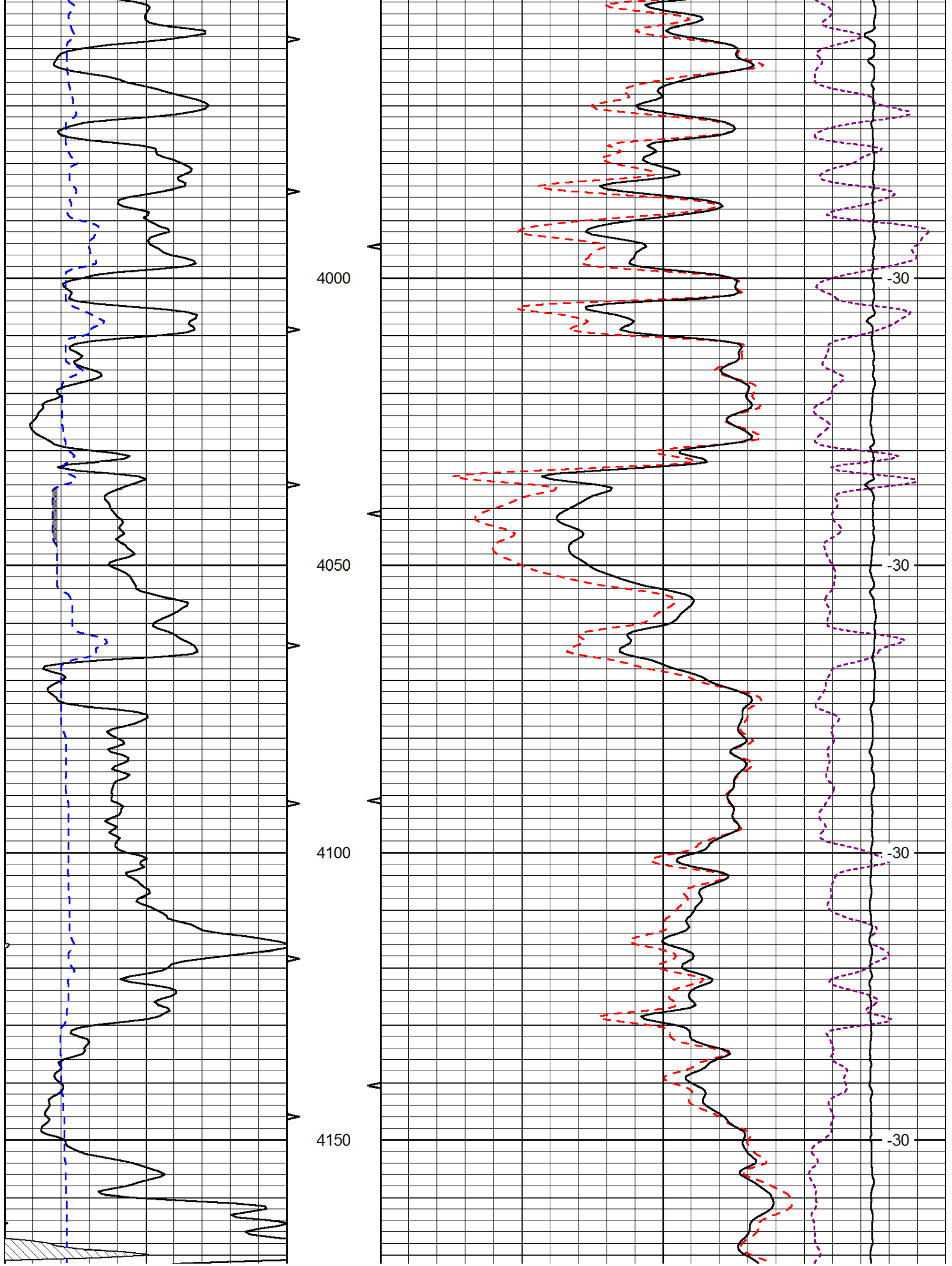
McDonald,
10 North to Z RD, 1 1/2 West,
North into

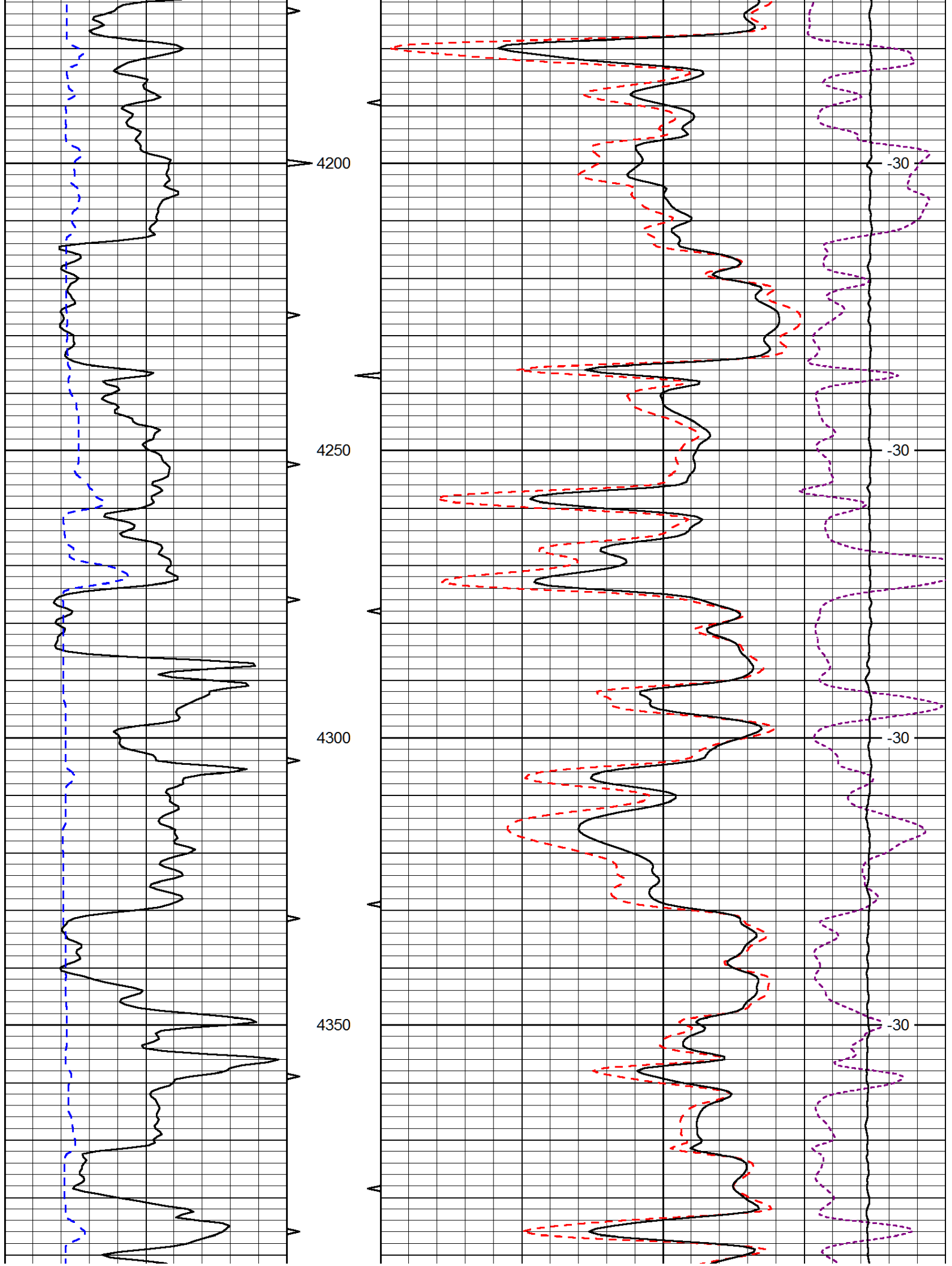
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

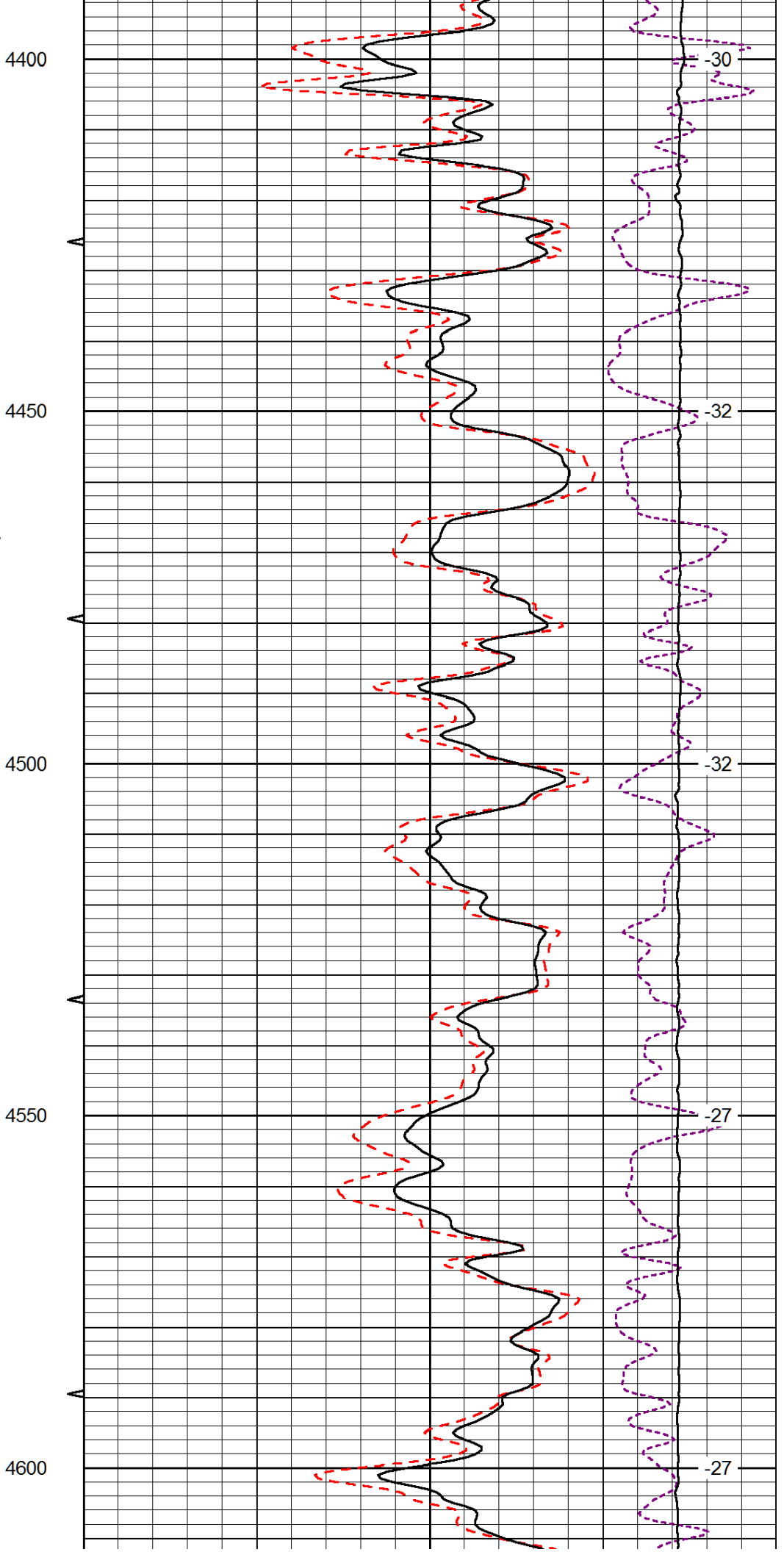
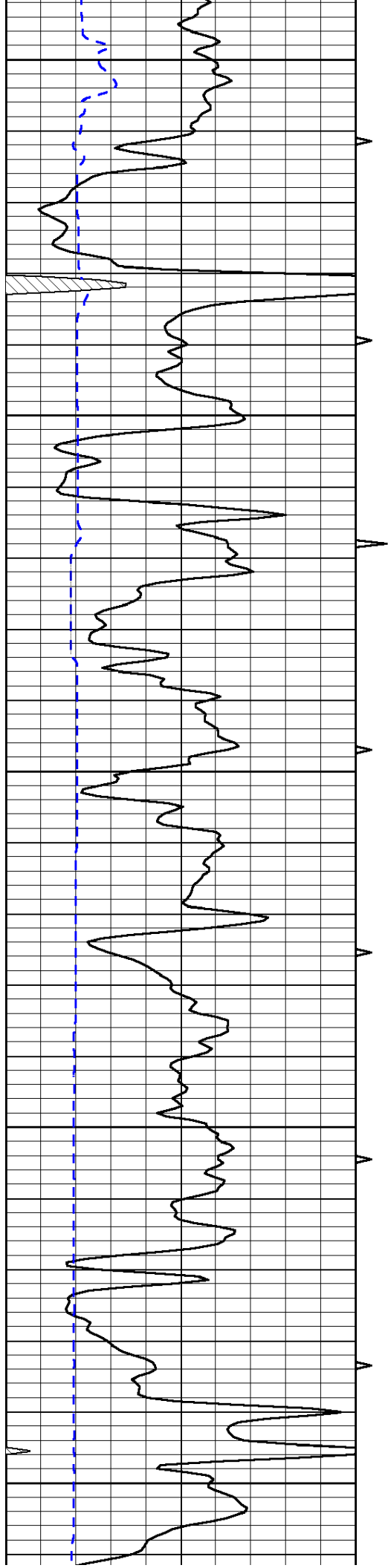
30	Compensated Density (pu)		-10
2	Bulk Density (g/cc)		3
15000	Line Tension (lb)		0
	-0.25	Correction (g/cc)	0.25
		LSPD (ft/min)	

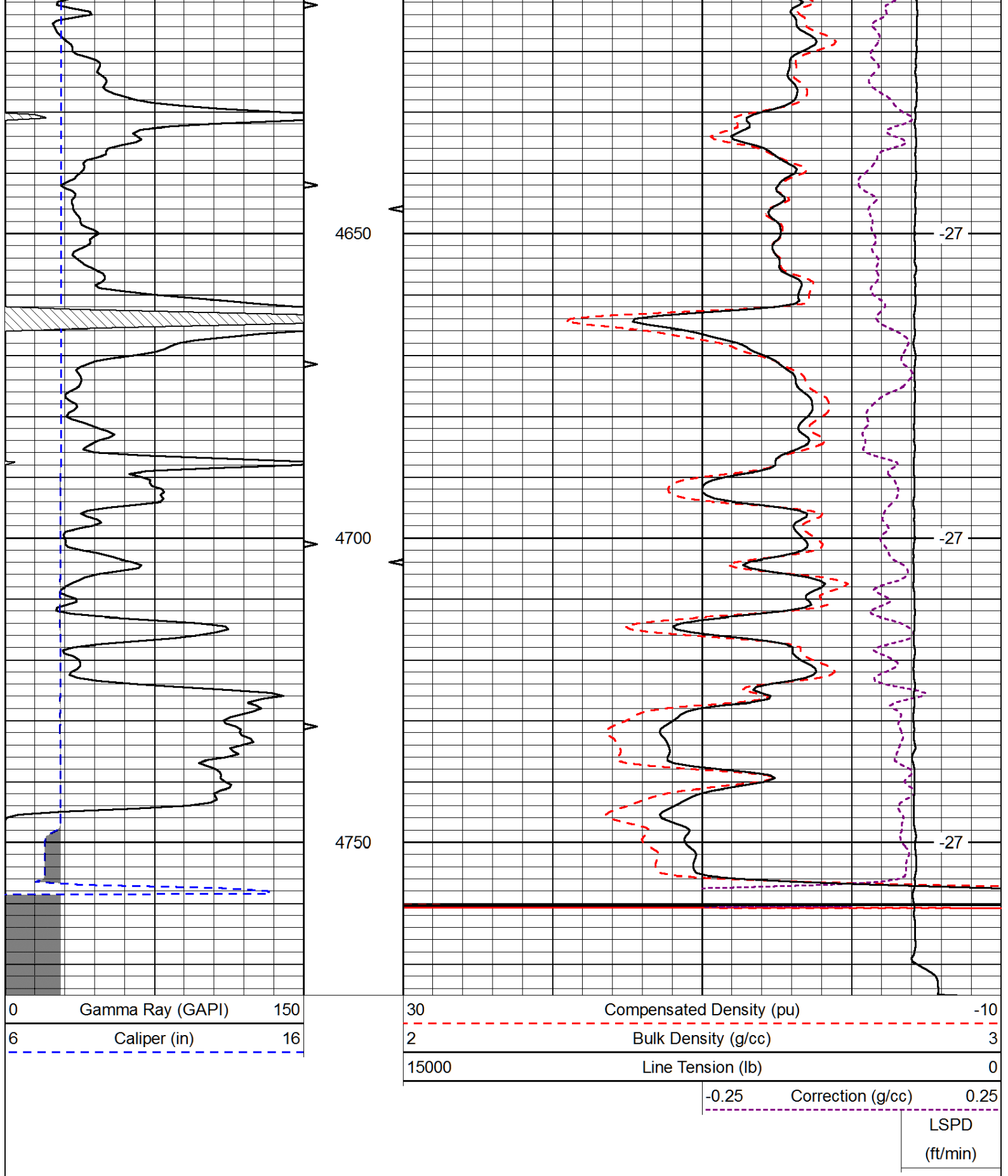












Database File: murfin_021113hd.db
Dataset Pathname: dil/mrfstack
Presentation Format: cndlspec
Dataset Creation: Mon Feb 11 16:27:40 2013
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

30	CNLS (pu)	-10
30	Compensated Density (2.71 ma) (pu)	-10
10000	Line Tension (lb)	0
	-0.25	Correction (g/cc)
		0.25
		LSPD
		(ft/min)

